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GOVERNMENT OF INDIA
TARIFF COMMISSION

REPORT ON
The Continuance of Protection to the Machine Screw Industry

BOMBAY, 1959

PRINTED IN INDIA, BY THE MANAGER, GOVT. OF INDIA PRESS
NASIK ROAD, PUBLISHED BY THE MANAGER OF PUBLICATIONS, DELHI,
1960

Price: Rs. 1·75 *or* 2*sh.* 6*d.*

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DR. RAMA VERMA

GOVERNMENT OF INDIA

MINISTRY OF COMMERCE AND INDUSTRY

RESOLUTION

Tariffs

New Delhi, the 1st December, 1959.

No. 18(1)-T.R./59.—The Tariff Commission has submitted its Report on the continuance of protection to the Machine Screws Industry on the basis of an inquiry undertaken by it under Sections 11 (e) and 13 on the Tariff Commission Act, 1951. Its recommendations are as follows:—

(1) Protection granted to the machine screw industry need not be continued beyond 31st December, 1959.

(2) Steps should be taken by Government at an early date to establish additional capacities not only for production of ordinary types of machine screws but also for the manufacture of precision and specialised types of screws.

(3) The Indian Standards Institution should lay down at an early date standards for iron or steel wire rods and wires for the machine screw industry.

(4) The Development Commissioner, Small Scale Industries should take necessary steps, as early as possible, to assess carefully the capacities on single shift of three small scale units, *viz.* (1) Bombay Engineering and Metal Works Private Ltd., (2) Dogra Steel Industries, Faridabad, and (3) Khemchand Vijay Kumar, Jullunder.

(5) The Iron and Steel Controller should arrange without delay for supply of additional quantities of billets to National Rolling and Steel Ropes Ltd. in order to meet the pressing current requirements of wire rods and wires by the machine screw industry.

(6) As soon as Indian Steel and Wire Products Ltd. is able to effect despatches against all outstanding indents, the Iron and Steel Controller should take steps to plan production or wire rods and wires on this company as well as on National Rolling and Steel Ropes Ltd. in such a way that the raw material requirements of the machine screw industry on two shift basis are met in full and also in time.

(7) The Iron and Steel Controller should obtain quarterly returns—(a) from Indian Steel and Wire Products Ltd., and National Rolling and Steel Ropes Ltd. showing their receipts of billets for conversion into wire rods and wires required for the machine screw industry and despatches of wire rods or wires to the several units in the industry against their indents, (b)

from all machine screw units showing actual receipts of wire rods and wires against their indents and the manner in which they have been utilised.

(8) Manufacturers of machine screws should apply for wire rods and wires in standard gauges with standard tolerances and for reasonable quantities in each gauge. While issuing quota certificates both the Development Wing and the Iron Steel Controller should satisfy themselves that they are made out in standard gauges with standard tolerances.

(9) The Machine Screw Industry should take immediate steps to improve the quality of its products by using only tested mild steel wire rods and wires and also by adopting closer supervision at each stage of manufacture.

2. Government accept recommendation (1) and the necessary legislation will be undertaken in due course.

3. Government have taken note of recommendations (2) to (8) and steps will be taken to implement them as far as possible.

4. The attention of the manufacturers of Machine Screws is invited to recommendations (8) and (9).

ORDER

ORDERED that a copy of the Resolution be communicated to all concerned and that it be published in the *Gazette of India.*

(S. RANGANATHAN),
Secretary to the Government of India.

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REPORT ON THE CONTINUANCE OF PROTECTION TO THE MACHINE SCREW INDUSTRY

Previous tariff inquiries.

1. On the recommendation of the Tariff Board the machine screw industry was granted protection by levying a protective duty of 31½ per cent. *ad valorem* on iron or steel machine screws with effect from 1st December 1951. The period of protection, which was initially fixed up to 31st December 1954, was extended by Government, after consultation with the Commission, up to 31st December 1955. The Commission conducted a second inquiry into the industry in 1954 and in its Report, dated 7th February 1955, recommended the continuance of protection to the industry up to 31st December 1957 by the levy of a higher rate of duty, namely, 50 per cent. *ad valorem* or 9 annas per gross, whichever was higher. This recommendation was accepted by Government and the higher rate of protective duty was brought into force on 23rd August 1955. The period of protection was extended up to 31st December 1957 by the Indian Tariff (Second Amendment) Act, 1955. Under the Finance (No. 2) Act, 1957, the specific duty was rounded off to 60 naye Paise. The third inquiry was held in 1957 and in its Report the Commission recommended the continuance of protection to the industry for a further period of two years, that is, up to 31st December 1959 at the same rate of protective duty. This recommendation was accepted by Government, *vide* Ministry of Commerce and Industry Resolution No. 18(1)TP/57 dated 25th October 1957. Protection was extended up to 31st December 1959 by the Indian Tariff (Second Amendment) Act, 1957.

Present inquiry

2. As the current period of protection is due to expire on 31st December 1959, the present inquiry was undertaken under section 11 (e) read with section 13 of the Tariff Commission Act, 1951, under which the Commission is empowered to inquire into and report on any further action required in relation to protection granted to an industry with a view to its increase, decrease, modification or abolition according to the circumstances of the case.

3. Method of inquiry

3.1. Questionnaires were issued to manufacturers, consumers and importers in February/March 1959. The two associations of manufacturers were also requested to furnish memoranda on the industry. A memorandum on the progress of the industry subsequent to the last inquiry, its present position and plans for expansion was called for from the Development Wing. The Development Commissioner for Small Scale Industries was requested to furnish a memorandum on the small scale sector of the industry. The Iron and Steel Controller was asked for information about the supply position and allotment of mild steel annealed wires to machine screw manufacturers. An inquiry was made from the Director General of Supplies and Disposals about the quality of indigenous products, the purchase policy followed by Government and other allied matters. The Directors of Industries, Punjab and West Bengal were requested to furnish memoranda on the present position of the industry in their respective States. The principal manufacturers of steel wires were addressed for information about the supply of wires to the machine screw industry. Data relating to c.i.f. prices and landed costs of imported machine screws were called for from Collectors of Customs, Bombay, Calcutta and Madras. The High Commission of India in the United Kingdom and the Embassies of India in West Germany and Japan were requested to furnish information regarding current f.o.b. prices of machine screws in those countries. A press note was issued on 28th April 1959 inviting manufacturers, consumers, importers and others interested in the inquiry to obtain copies of the relevant questionnaires and submit replies. A list of those to whom questionnaires and letters were issued and from whom replies or memoranda were received is given in Appendix I.

3.2. Dr. S. K. Muranjan and Shri J. N. Dutta, Members, visited the factory of Badhwar & Co., Delhi on 6th May 1959. They also visited the factories of Universal Screw Factory, National Industries, Victor Industries and K. B. Engineering Co. (in and around Amritsar) on 8th and 9th May 1959. Dr. S. K. Muranjan, Shri J. N. Dutta and Shri R. S. Bhatt, Members, visited the factory of Guest, Keen, Williams Ltd., Bombay on 9th and that of Rambal Private Ltd., Madras on 23rd June 1959.

3.3. Shri E. S. Natarajan, Assistant Cost Accounts Officer of the Commission visited the factories of Universal Screw Factory and K. B. Engineering Co. from 20th to 31st May 1959 to examine the cost of production of machine screws manufactured by them.

3.4. A public inquiry into the industry was held on 16th June 1959. A list of persons who attended the inquiry is given in Appendix II.

Implementation of the Commissions's recommendations made in 1957 on matters other than tariff

4. The recommendations made in our 1957 Report on matters other than tariff and the action taken on them are briefly stated below :—

4.1. *Recommendation No.* (2) *:*

> "The Development Wing should try to establish better liaison between the machine screw manufacturers and important consumers of machine screws so as to enable the manufacturers of machine screws to produce screws according to the specifications required by the consumers."

The Ministry of Commerce and Industry has observed that the need for the kind of liaison suggested by us would be obviated if the Indian Standards Institution could expedite the laying down of a standard for machine screws above 6 mm and a certification mark scheme in respect of this industry was introduced thereafter. It promised to bring to the notice of indigenous manufacturers any complaints received from important consumers with a view to ensuring production of good quality screws. We may mention here that our object in making the above recommendation was that the Development Wing should collect information about the specifications of various types of machine screws which were imported either as proprietory parts or as components of machines and develop the manufacture of such types as could be satisfactorily produced by the existing units.

4.2. *Reommendation No.* (3):

> "The existing units which have been manufacturing ordinary types of machine screws and have gained experience in the line may be given opportunities to expand and diversify their capacities before new units are licensed. The Development Wing should also extend adequate assistance to such units to secure the necessary technical know-how, suitable plant and machinery and raw materials for this purpose."

Recommendation No. (10):

> "The industry should take steps to further diversify its production both in the direction of the manufacture of precision screws and other specialised types of machine screws as well as in the finish of their products according to market requirements."

The Development Wing has informed us that the existing manufacturers were encouraged to diversify the range of their production and that three leading manufacturers, namely, Guest, Keen, Williams Ltd., Bombay, Universal Screw Factory, Chheharta and Jagatjit Engineering Works, Kapurthala had submitted their expansion schemes. In addition, K. B. Engineering Co. has placed orders for special thread rolling dies. Bengal Screw Mfg. Co., manufactures at present screws with BSW threads and is also arranging to obtain thread rolling dies for the manufacture of BA thread machine screws. Southern Industrial Corporation Private Ltd., has plans to manufacture special types of screws such as Philips recessed head screws, sheet metal screws and metric thread screws. It has already equipped its factory with an electro-plating section for plating screws. This matter is discussed further in paragraph 10.2.

4.3. *Recommendation No.* (4):

> "The Indian Standards Institution should give high priority to the formulation of standards for iron and steel rods and wires for the machine screw industry."

We are informed that a preliminary draft specification for steel wires suitable for the manufacture of machine screws has been prepared by the Indian Standards Institution and that it would be put into wide circulation shortly. No specification has yet been drawn up for iron and steel wire rods required for drawing wires for the machine screw industry.

4.4. *Recommendation No.* (5):

> "The Steel Processing Industries Regulations should be suitably amended so as to render possible the allocation of mild steel annealed wire to the machine screw industry from indigenous sources to enable it to work two full shifts daily."

We are informed that previously only those factories which were registered on or before 31st March 1953 were eligible for allotment of steel up to a certain percentage of their capacity lately the Steel Processing Industries Regulations have been amended enabling all steel processing factories established and registered under the Indian Factories Act on or before 31st December 1957 to apply to the Development Wing for allotment of steel under the Steel Processing Industries quota. Accordingly under the amended Regulations more firms including machine screw manufacturers will be able to establish their eligibility for steel allotments from the Central Steel Processing Industries quota. Owing to shortage of steel, however, it has not been possible to allot sufficient quota of steel for distribution to the machine screw industry for two-shift working. The Development Wing has further informed us that Government has recently decided to include in the Central Steel Processing Industries list such units which, though licensed under the Industries (Development and Regulation) Act, 1951, were so long looked after by the State Directors of Industries and that this decision is in the process of implementation.

4.5. *Recommendation No.* (6):

> "The Iron and Steel Controller should arrange for supplies of adequate billets for conversion into rods and wires required by the machine screw industry. He should issue quota certificates to machine screw manufacturers on the basis of the Development Wing's recommendation, and also establish a procedure to ensure physical deliveries of the allotted quota in time."

Recommendation No. (7):

> "The Iron and Steel Controller should, in consultation with the Development Wing and the Ministry of Defence, take urgent measures to utilise the spare capacities of rods and wires, if any, with the National Rolling and Steel Ropes Ltd., and the ordnance factories so that the raw material requirements of the machine screw industry would be taken care of by more than one producer of rods and wires."

The Iron and Steel Controller has informed us that he enquired from the Director General of Ordnance Factories and National Rolling and Steel Ropes Ltd. whether it would be possible for them to produce mild steel wire rods and wires for the machine screw industry. The replies received by him indicated that while Ordnance Factories might be able to spare some capacity, there was no guarantee of regular or prompt supply of wire rods and wires as the volume of production would be dependent on the capacity which they would be able to spare from time to time after meeting their own service demands. However, the matter is being pursued by the Iron and Steel Controller. National Rolling and Steel Ropes Ltd. intimated that it could produce M. S. wires from 4 S. W. G. to 14 S.W.G. But not much use could be made of this offer as the primary function of the equipments installed by it is to increase the production of wire ropes and to cope with other urgent demands. As a result, the bulk of the requirements of the machine screw industry was planned on Indian Steel and Wire Products Ltd. The Iron and Steel Controller has stated that he has issued from time to time to each manufacturer quota certificates for indigenous wire rods and wires and also licences for import of wire rods and wires up to the quantities recommended by the Development Wing. In addition, instructions have been issued by him to Indian Steel and Wire Products Ltd. to pay special attention to machine and wood screw manufacturers and to submit to him periodical statements showing actual supplies. The matter is discussed further in paragraph 8.

4.6. *Recommendation No.* (8) *:*

> "The Railway administration should try to meet the requirements of the machine screw industry for wagons for the movement of its raw materials and finished products."

The representatives of the industry present at the public inquiry informed us that lately they were not experiencing any difficulty in obtaining adequate supply of wagons for the movement of their raw materials or finished products.

4.7. *Recommendation No.* (9) *:*

> "The Government of Punjab should take urgent steps to meet the requirements of Jagatjit Engineering Works for additional electric power."

The Development Wing has informed us that the matter was taken up with the Government of Punjab, as a result of which the firm has received supply of electric power to the extent of 30 k.w. for night working only. On a further representation from the firm that in order to facilitate normal working of the factory it should be given adequate power for day working also, the matter has again been taken up by the Development Wing with the State Government. No reply has yet been received from the State Government.

4.8. *Recommendation No.* (11) *:*

> "The industry should maintain proper accounts and have them audited annually by qualified Chartered Accountants."

The above recommendation was made with reference to proprietory concerns. We have been informed by the proprietor of Universal Screw Factory that steps have been taken by him to get his accounts for the year ended 31st August 1958 audited by a firm of Chartered

Accountant. The representative of Jagatjit Engineering Works stated that owing to the death of the senior partner it has not been possible for him to implement this recommendation. He, however, promised to get his accounts for the year 1958-59 audited by a Chartered Accountant.

Scope of the inquiry

5. The scope of the present inquiry covers machine screws made from iron or steel, including the following types the shanks of which has been threaded to within two pitches from the head, namely, (i) mushroom head roofing bolts, all types, (ii) hexagonal head bolts, all types, and (iii) mudguard cycle bolts (with threading other than British Standard Cycle Threading).

6. Domestic demand

6.1. At the time of our last inquiry in 1957 we estimated the then current demand for iron or steel machine screws of all types at about 2 million gross and expected that it would increase by about 25 per cent. every year in the future. These estimates did not include the requirements of those industrial undertakings which manufactured machine screws for their own consumption. In the course of the present inquiry we received divergent estimates of demand from several sources and they ranged from 2.50 million gross to 4.00 million gross for 1959 and from 3.25 million gross to 6.00 gross for 1962. The Development Wing has observed that it is not easy to assess with accuracy the demand for a common fastener like machine screws which find their use in a variety of industries in varying degrees. However, on the assumption that the present rate of progress in engineering industries like bicycles, electric motors and appliances, metal fabricating industries and typewriters is maintained, it has expresed the view that the demand for machine screws would be of the order of about 3 million gross for 1959, gradually rising by half a million gross per annum during the subsequent three years. Jagatjit Engineering Works has placed its estimates of demand at 4 million gross (2,000 tons) for 1959, 5 million gross (2,500 tons) for 1960, 5.5 million gross (2,750 tons) for 1961 and 6 million gross (3,000 tons) for 1962. Guest, Keen, Williams Ltd. has estimated the demand at 2.50 million gross for 1959, 2.75 million gross for 1960, 3.00 million gross for 1961 and 3.25 million gross for 1962, that is, an increase of 0.25 million gross a year.

6.2. The consumption of machine screws during the last two years as indicated by sales of domestic screws and imports was as follows:—

(Conversion at 2,000 gross screws to a ton)

Year	Sales	Imports	Total
	Gross	Gross	Gross
1957 . . .	1,489,161	548,200	2,037,361
1958 . . .	2,063,665	218,000	2,281,665

The data relating to sales of indigenous machine screws and imports are, however, incomplete inasmuch as the former do not include sales of machine screws by small scale units, sales of bolts (except those by Guest, Keen, Williams, Ltd., Calcutta) and socket screws as well as consumption of screws by undertakings manufacturing them for their own use. As regards imports, they do not cover all types of screws falling within the scope of the present inquiry as well as those imported as parts of machinery or machinery spares.

6.3. The various estimates of demand furnished to us as also the sales and imports of machine screws referred to above were discussed at the public inquiry. We were informed that stocks of machine screws lying unsold with manufacturers or dealers at the end of 1958 were negligible and that many consumers experienced difficulties in obtaining their requirements of machine screws. It was also represented to us that due to demand outstripping production all machine screws, irrespective of quality, have a ready market and were sold at a premium. It would therefore appear that a sizeable portion of the demand in 1958 remained unfulfilled. Taking into consideration this as well as other relevant factors, such as, the trend of consumption during the last two years, limited coverage and other deficiencies in the statistics of production, sales and imports referred to in the preceding paragraph, we estimate that the domestic demand for machine screws would be in the neighbourhood of 3.00 million gross for 1959. As regards the future, with the increased availability of steel, there is likely to be an appreciable increase in the tempo of development in industries using machine screws. In our view, the demand may increase to 4.50 million gross in 1960 and 6.00 million gross in 1961. These estimates are however exclusive of the requirements of establishments which manufacture screws for their own use.

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7. Present position of the industry.

7.1. *Machine screws:*

7.1.1. In 1957 there were nine units engaged in the manufacture of machine screws and we estimated their capacity on single shift basis at 1,368, 960 gross per annum. We were also then informed that Universal Screw Factory had been granted a licence to expand its capacity by 0.3. million gross per annum on single shift. In addition, the following four new units had been licensed to manufacture machine screws:—

name of unit	Licesed capacity on single shift (in gross per annum)
1. Rembal Private Ltd., Madras	67,708
2. Southern Industrial Corporatio Private Limited, Madras . .	2,40,000
3. Shree Ram Screw and Metal Industries, Madras	60,000
4. Delhi Wire Industries, Delhi	115,200

The present position in regard to the expansion of capacities is that Universal Screw Factory has installed the additional capacity of 0.3 million gross. Ramball Private Ltd. which produces mostly brass screws commenced production in January 1958. Southern Industrial Corporation Private Ltd. went into production on a commercial scale in October 1958. The Development Wing has informed us that Shree Ram Screw and Metal Industries has not yet made any progress to implement its scheme of production and that the licence issued to Delhi Wire Industries has been revoked. One new unit, namely, T.E. Thomson & Co. Ltd., Calcutta has been licensed to undertake manufacture of bolts, nuts, rivets, studs and set screws. The overall capacity sanctioned for this unit is 144 tons, but the break-down for the machine screw sector (that is, studs and set screws) is not available. The firm is yet to go into production.

7.1.2. Most of the units are either proprietory or partnership concerns and only a few have formed themselves into corporate undertakings. Most of the machinery installed in these factories have been fabricated locally. Many of these concerns maintain a foundry, smithy and a workshop and employ craftsmen to make parts which the local market cannot readily supply.

7.1.3. A table showing the capacity of each unit on single shift and its production during 1957, 1958 and the first three months of 1959 is given in Appendix III(A). The aggregate capacity has increased from 1,368,960 gross in 1957 to 2,092,000 gross in 1959. Production went up from 1,510,736 gross in 1957 to 1,981,369 gross in 1958, a rise of about 31 per cent. in a year. We are informed that the equipments installed in these factories can be used also for the manufacture of brass screws and that many units switch over to the production of brass screws when either mild steel annealed wires are not available or there is a spurt in demand for brass screws.

7.2. *Bolts classified as machine screws :*

7.2.1. The Development Wing has informed us that bolts classifiable as machine screws are produced by Guest, Keen, Williams, Ltd. and certain other units but since licences to manufacture such bolts have in most cases been issued under the broad classification of machine screws and not specifically as bolts, separate figures of sanctioned capacities for bolts are not available. The present installed capacity and production of bolts during 1957 and 1958 as furnished by Guest, Keen, Williams Ltd. Calcutta and the Development Wing are given in thẹ following statement :

Name of the unit	Present installed capacity	Production in 1957	Production in 1958	Remarks
	Gross	Gross	Gross	
1. Guest, Keen, Williams, Ltd.	*230,000	257,700	309,900	*Combined capacity for machine Sercws and borlts.
2 Badhwar & Co.	*144,000	N.A.	N.A.	
3. Universal Screw Factory	1,200,000	..	96,384 (for July/ Dec. 1958)	
4. Jagatjit Engineering Works	45,000	..	**227,750	@Roofing bolts only.
5. Bengal Screw Mfg. Co.	*300,000	7,880	41,338	**Includes 204 285 gross mud-guard cycle bolts other than British Standard Cycle Threading.

7.2.2. At the public inquiry the representative of Indian Steel and Wịre Products Ltd. stated that this firm had been manufacturing fully threaded hexagonal bolts 5/8″ in diameter and lengths up to 4″ and that its production was of the order of about 500 tons per annum. The representative of the Development Commissioner, Small Scale Industries, furnished the following information regarding the capacities of three small scale units manufacturing roofing bolts (mushroom head) :—

Name of the unit	Capacity
1. Bombay Engineering & Metal Works Private Limited	56 tons per month.
2. Dogra Steel Industries, Faridabad . . .	580 tons per month.
3. Khemchand Vijaykumar, Jullunder . . .	100 tons per month.

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He could not furnish any information about their production in the past, nor could he state whether the capacity claimed is based on single shift or double shift working. Since the capacity actually installed is a factor which is taken into consideration is allocating mild steel wire rods and wires, it is important that a careful assessment of the capacities of the three units (on single shift) should be made. We recommend that necessary steps in this behalf should be taken by the Development Commissioner, Small Scale Industries as early as possible.

7.3. *Socket Head Screws.*—At the time of the last inquiry we were informed that socket head screws were manufactured on a limited scale by some firms in Calcutta and Bombay but particulars of their capacity and production were not available. During the present investigation efforts were made to collect relevant data from the Development Wing and the Small Industries Service Institute, Calcutta. The data pertaining to the units in Calcutta as reported by the Small Industries Service Institute are given in Appendix III(B). Although the present annual capacity for the manufacture of socket head screws is reported to be 14,780 gross per annum, actual output was small, namely 1,754 gross in 1956, 2,645 gross in 1957, 3,510 gross in 1958 and 1,210 gross during the first quarter of 1959. Similar information in regard to Bombay units is not available.

7.4. Taking the three sectors of the industry together the total annual capacity for the manufacture of machine screws, bolts classifiable as machine screws and socket head screws comes to 3,536,780 gross. The combined output of these items was 1,778,961 gross in 1957 and 2,660,251 gross in 1958. These figures, however, are not complete as they do not include the production of Indian Steel and Wire Products Ltd., some of the units in the small scale sector engaged in the manufacture of protected categories of machine screws, ordnance factories and those industrial undertakings which manufacture screws, etc. for their own use.

Raw materials and consumable stores.

8.1. The principal raw material for iron or steel machine screws is low carbon, low manganese, mild steel annealed wire from 14 SWG to 2 SWG. The consumable stores required are thread rolling dies, high carbon or alloy steel, slitting saws, tungsten carbide wire drawing dies, lubricants, mill stores, V.P.I. (Vapour Phase Inhibitor) packing paper and other packing materials. Barring high carbon or alloy steel, slitting saws, tungsten carbide wire-drawing dies and V.P.I. paper the rest are available indigenously. At present there is only one producer of thread rolling dies in the country but as supplies are irregular and are also reported to be not satisfactory, the industry has to depend largely on imports for its requirements of thread rolling dies.

8.2. Mild steel wire is a controlled item and both its production and distribution are planned and controlled by the Iron and Steel Controller. Steel billets manufactured by Tata Iron and Steel Co. Ltd., and Indian Iron and Steel Co. and imported billets are supplied to Indian Steel & Wire Products Ltd., Jamshedpur and National Rolling and Steel Ropes Ltd., Calcutta to be converted into rods and wires. A portion of mild steel wires manufactured by these two companies is made available to machine screw manufacturers against quota certificates issued by the Iron and Steel Controller on the recommendations of the Development Wing but as such quotas are inadequate, they are supplemented from time to time by imports to a limited extent. In our last Report we had drawn attention to the urgent need for increasing the allocation of mild steel wires to the machine screw industry from indigenous sources and towards that end recommended, *inter alia*, that the Iron and Steel Controller should:

(i) arrange for supplies of adequate quantities of billets for conversion into wire rods and wires to meet the requirements of of the machine screw industry on the basis of 100 per cent. of its licensed capacity on two shift basis; and

(ii) issue quarterly quota certificates to machine screw manufacturers on the basis of the Development Wing's recommendation and also establish a procedure to ensure physical deliveries in time of the allotted quota.

We also recommended that manufacturers on their part should be asked to forward their indents for wire rods and wires for the manufacture of machine screws separately from those required for wood screws and that such indents should be for standard guages with usual tolerances. In addition, we suggested that a close watch over the performance of the industry should be maintained by both the Development Wing and the Iron and Steel Controller and that the several units of the industry should be periodically inspected by the representatives of the two organisations.

8.3. As stated in paragraphs 4.4 and 4.5 it has not been possible for the Iron and Steel Controller to allot quota certificates to the machine screw industry on the basis of two-shift working. Instructions were issued by him to Indian Steel and Wire Products Ltd. to pay special attention to the needs of the machine screw industry and to submit to him periodical returns showing actual supplies. We were informed, however, that owing to shortage of staff neither the Controller nor the Development Wing could undertake periodical inspection of machine screw factories. With effect from the fourth quarter of 1958-59 a system of separate quotas for mild steel wires and wire rods required for the manufacture of machine screws has been introduced by the Iron and Steel Controller. Since then manufacturers have been sending separate indents for wires and wire rods required for machine screws. Indian Steel and Wire Products Ltd. has claimed that supplies of mild steel wires to manufacturers in 1958 were larger than in 1957 and that outstandings against quotas on 1st June 1959 were 2,066 tons. Manufacturers of machine screws have, on the other hand, complained that there has not been any improvement in the supply of wires. They allege that Indian Steel and Wire Products Ltd., does not issue acceptance notes for indents placed nor does it give any assurance about delivery periods or the grades of wires. Often supplies of wires were made in one particular gauge against indents for more than one gauge which resulted in serious dislocation in the manufacturing programme of the machine screw units concerned. It has also, been difficult for them to obtain tested wire rods against their quota certificates. The representative of Indian Steel and Wire Products Ltd. contended that delays in deliveries in the past were due to (a) shortage of billets, (b) failure on the part of machine screw manufacturers to adhere to uniform specifications as regards dimensions in their indents for wires, and (c) fragmentation of demands into too many sizes—each in small quantities. He stated that most of the delays could have been avoided if the manufacturers had placed their indents for wires in standard gauges with standard tolerances and asked for quantities in each gauge for ½ wagon-load at a time.

8.4. The question was discussed at the public inquiry. The figures furnished by the Iron and Steel Controller ragarding supply of billets to Indian Steel and Wire Products Ltd. and National Rolling and Steel Ropes Ltd. during 1957 and 1958 did not agree with the figures reported by the two concerns. There was also no correlation between the quantities authorised by the Iron and Steel Controller's quota certificates and actual quantities of wires and wire rods supplied by Indian Steel and Wire Products Ltd. Further, though I.S.W.P. submits to Iron and Steel Controller periodical returns of actual despatches of wires to machine screw manufacturers, the figures furnished to us by the Controller on the basis of those returns did not agree with those reported to us direct by I.S.W.P. There were also wide discrepancies between the figures of actual despatches reported by I.S.W.P. and the Iron and Steel Controller and the receipts by individual machine screw units. The representative of National Rolling and Steel Ropes Ltd. stated that although the rolling capacity of his firm is 30,000 tons per year, it has not been able to utilise more than one-third of its capacity on account of shortage of billets. He also stated that his firm has equipments to draw out high tensile steel wires for the manufacture of high tensile machine screws.

8.5. After considering the evidence available with us we have come to the conclusion that the unsatisfactory position of supply of wires to the machine screw industry was due not only to shortages of billets for conversion into rods and wires but also to having virtually a single supplier of wires. We are also convinced that the control exercised at present by the Iron and Steel Controller over the allocation of billets to, and actual despatches of wires by, Indian Steel and Wire Products Ltd. is tenuous and needs to be tightened. We emphasised in our last Report the urgent need for establishing alternative sources of supply; such sources could not, however, be established for the reasons explained in paragraph 4.5. We are informed that licences have been issued to Special Steel Private Ltd., Bombay, Prestressed Concrete Company (South India) Private Ltd. and Iron Products (Assam) Ltd. to establish wire-drawing capacities. They are not likely to come into production before 1960-61. Indian Steel and Wire Products Ltd. has a backlog of about 2,000 tons of wires to supply before it can catch up with current quotas while about two-thirds of the rolling capacity of National Rolling and Steel Ropes Ltd. are reported to be lying idle. Since there has lately been an appreciable improvement in the billet position, it is desirable that the idle capacity of National Rolling and Steel Ropes Ltd. should be pressed into service as quickly as possible to remove the continuing shortage of tested mild steel wire rods and annealed wires required by the machine screw industry. We recommend therefore that the Iron and Steel Controller should arrange for supply of additional quantities of billets to this company without delay in order to meet the pressing current requirements of wire rods and wires by the machine screw industry. As soon as Indian Steel and Wire Products Ltd. is able to effect despatches against all outstanding indents, the Iron and Steel Controller should take steps to plan production on this company as well as on National Rolling and Steel Ropes Ltd. in such a way that the raw material requirements of the machine screw industry on two shift basis are met in full and also in time. For this purpose we recommend that:

(a) manufacturers of machine screws should apply for wire rods and wires in standard gauges with standard tolerances and for reasonable quantities in each gauge. While issuing quota certificates both the Development Wing and the Iron and Steel Controller should satisfy themselves that they are made out in standard gauges with standard tolerances,

(b) the Iron and Steel Controller should obtain quarterly returns—

(i) from Indian Steel and Wire Products Ltd. and National Rolling and Steel Ropes Ltd. showing their receipts of billets for conversion into wire rods and wires required for the machine screw industry and despatches of wire rods or wires to the several units in the industry against their indents;

(ii) from all machine screw units showing actual receipts of wire rods and wires against their indents and the manner in which they have been utilised.

8.6. In paragraph 6.3 we estimated the demand for machine screws at 3.00 million gross for 1959 and 6.00 million gross for 1961. Assuming that one ton of steel wire is required to produce 1,600 gross of machine screws, the demand for steel wires for the machine screw industry would be of the order of 1,900 tons for 1959 and 3,800 tons for 1961. The billets required for the production are not likely to exceed 2,300 tons in 1959 and 4,500 tons in 1961. The quantities involved being so small, *prima facie,* there should not be any difficulty in reserving them for the machine screw industry. We discussed this question with the Deputy Iron and Steel Controller present at the inquiry. In view of the increased availability of billets from Tata Iron and Steel Co. Ltd. he foresaw no difficulty in earmarking the above quantities for conversion into wires and wire rods for the machine screw industry. A few units like Guest, Keen, Williams, Ltd., Lallubhai Amichand Private Ltd., Universal Screw Factory and Southern Industrial Corporation Private Ltd., have capacities for drawing wires from wire rods. (The representative of Universal Screw Factory stated, however, that he is unable to utilise his wire-drawing capacity in full owing to shortage of power.) All these units desired to have a part of their requirements in the form of tested annealed wire rods as such supplies would enable them to draw wires according to their own requirements. We are informed that allocations and supplies of wire rods and wires are made on the basis of indents by machine screw manufacturers and that it is easier for the Iron and Steel Controller to arrange for supplies of wire rods. Such manufacturers as have wire drawing capacity should, therefore, ask for tested wire rods in their periodical indents on the Development Wing in future.

9. Quality of indigenous products.

9.1. *Standard specifications.*—Indian standard specifications have been prescribed for dimensions for screw threads (below 6 mm.). No specifications have yet been laid down for screw threads above 6 mm. In the absence of such specifications, manufacturers of machine screws in the country have been following either the standards adopted by British and Continental manufacturers or those specified by their customers.

9.2. *Quality.*—In our last Report (1957) we expressed the view that the quality of indigenous machine screws was generally satisfactory. In connection with the present inquiry, the Development Wing has stated that it has not received any complaint from consumers and that the quality of domestic machine screws in the ranges currently produced is comparable with that of the imported product. The views expressed by consumers in their replies to our questionnaire are, however, divergent. The Bombay Port Trust, the Controllers of Stores, Northern, North Eastern, Central and Western Railways, General Electric Co. Ltd., Atlas Cycle Industries, T. I. Cycles of India Ltd. and Hindustan Machine Tools Ltd. have stated that the quality of indigenously manufactured screws is satisfactory, while Crompton Parkinson (Works) Private Limited, Hindustan Aircraft Ltd., Matchwell Electricals (India) Ltd., Associated Electrical Industries Mfg. Co. Ltd. and Southern Railways have stated that the domestic machine screws produced by certain units are below standard. Crompton Parkinson has pointed out that heads of screws shear off when fully screwed home and Hindustan Aircraft has stated that dimensional tolerances with regard to both threads and diameters are not adhered to. The other imperfections pointed out by consumers are that the depth of threads is not uniform and often threads are not fully formed; slots are imperfectly cut and general finish is poor. The complaints were discussed at the public inquiry and the defects were attributed by the manufacturers either to inferior quality of wires or to difficulties in obtaining dies and alloy steel required for making dies. We have found that most of the units have not taken any measures for ensuring the quality of their products. Some of them are not careful in the choice of their raw materials and have admitted to have used H. B. Steel wires suitable for wood screws in the manufacture of machine screws. Barring one or two units the rest have not made adequate arrangements for inspection nor have they qualified technical personnel for supervision. The manufacturers may claim that they are able to produce machine screws which have been accepted generally by consumers to be satisfactory. But it is evident that the defects in machine screws are largely attributable to the absence of quality control. The need is all the greater since some of the existing units have plans for the manufacture of special types of screws and precision screws. Further, many of the manufacturers have been selling their defective screws along with their standard products. On the whole, it appears to us that since the demand is far in excess of production, there is no competition amongst indigenous producers, who have therefore, little incentive to improve the technique of their manufacture or the quality of their products. This is an unfortunate development and we impressed on the representatives of the industry who attended the public inquiry the importance of adopting quality control measures in their factories. From the evidence available to us as well as from what we saw during our visits to the several producing units we have come to the conclusion that (a) although there has been some improvement in the quality of machine screws produced in the country, there is still scope for further improvement, (b) there is considerable prejudice against the indigenous product and such prejudice has been due, in a large measure, to the sale of sub-standard screws along with standard products, and (c) that the existing units should adopt better techniques of production and close supervision at each stage of manufacture so that the output of sub-standard screws is reduced considerably. Indian manufacturers of machine screws ought to realise that it would not be in their long-term interests to seek short-term advantages by paying inadequate attention to the quality of their products. We recommend, therefore, that the Indian machine screw industry should take immediate steps to improve the quality of its products by using only tested mild steel wire rods and wires and also by adopting closer supervision at each stage of manufacture. It is not enough to provide a few gauges or to appoint a few trained persons; the management must ensure that proper inspection control is implemented and maintained.

9.3 We have stated in paragraph 4.3 that no standard specifications have yet been laid down by the Indian Standards Institution for iron or steel wire rods and wires for the machine screw industry. It has been represented to us that since machine screws must conform to rigid specifications as regards diameter and threading, it is imperative that the industry should be supplied with the right types of wire rods or wires. Most of the units have complained that the wire rods and wires supplied by Indian manufacturers are inferior to imported products. This may be due to the absence of Indian specifications for these materials. Having regard to the importance of the machine screw industry we repeat the recommendation in our last Report (1957) that the Indian Standards Institution should lay down at an early date standards for iron or steel wire rods and wires for the machine screw industry.

10. Diversification of production.

10.1. In paragraph 4.2 we have briefly indicated the directions in which a few units of the industry propose to diversify the range and variety of their output of machine screws in future. The following units have furnished information as regards the direction in which they have already diversified their production. Indian Telephone Industries manufactures precision screws, bolts and nuts. The screws are said to be of special design, namely ¼" B.S.P. union screws, ½" UNF cable outlet glands etc. which are not usually available in the open market. Guest, Keen, Williams, Ltd., Calcutta has commenced production of a limited range of cycle fastenings to consumers' own specifications and 'R' quality special screws for automobile and electrical industries. Jagatjit Engineering Works manufactures various types of special screws required for different industries such as radios, electric fans, electrical accessories, switches, etc. Universal Screw Factory has also diversified its production and is now engaged in the manufacture of (i) B.S.W. set screws of 3/16", 5/16" and ¼" in diameter and of lengths ranging from ½" to 6", (ii) self-tapping screws, (iii) saddle screws, and (iv) hub screws, Rambal Private Limited has equipments to manufacture B. A. screws and metal screws (System International and Japanese Industrial Standard) and also cycle thread screws. These units have equipments for electroplating their screws with nickel, cadmium or zinc.

10.2. As regards diversification in future, we are informed that Guest, Keen, Williams, Ltd., Bombay has obtained a licence under the Industries (Development and Regulation) Act, 1951 to expand its capacity to 78,000 gross per month on double shift. It proposes to manufacture roofing bolts, metal thread screws, non-standard screws for cycle and electrical industries, self-tapping screws, precision screws and other special types of screws according to market requirements. The company is awating a licence to import the necessary equipments from abroad. Universal Screw Factory has plans to undertake manufacture of special types of M.S. screws, stainless steel hexagon and socket head precision screws and set screws (Whitworth and B.A. full and partly threaded shanks) with pointed ends and with or without slots, grub screws studs for regulators, etc. Jagatjit Engineering works has also a plan to establish a factory near Delhi for the manufacture of self-tapping screws and precision screws.

10.3. As stated earlier the demand for ordinary types of machine screws is increasing faster than production and there is little competition amongst the existing units. It is arguable, however, that if the installed capacity is fully utilised the industry should be able to meet not only the current demand of this country but also the demand which we foresee for the immediate future and that the real problem is how to arrange for adequate supply of tested mild steel annealed wires and wire rods. Nevertheless, it should not be forgotton that it is extremely difficult to assess with accuracy the demand for machine screws and that with the increased availability of steel, there is bound to be considerable expansion of our industrial activity after 1962. Further, our machine screw industry has not yet paid sufficient attention to the manufacture of precision screws and other types of specialised screws. The representative of the Development Wing informed us that at present the demand for such screws would be of the order of Rs. 25 lakhs a year and that it is bound to increase rapidly in future with increasing industrialisation of the country. We are convinced that there is need for establishing additional capacities for the manufacture of not only ordinary types of machines screws but also of precision and other specialised screws. As regards the question whether such additional capacities should be secured by allowing the existing units to expand or by licensing new units, Guest, Keen, Williams Ltd. and Universal Screw Factory have represented that while machine screws can be efficiently produced in large quantities on high speed mass production plant, the Indian industry suffers by having to produce a wide range of types and sizes in comparatively small quantities. They have expressed the view that it would have been better if each unit had specialised in a few items as that would have enabled it not only to reduce the cost of production but also to improve the technique of manufacture and quality of its products. We see considerable force in this argument. Further, the manufacture of precision screws etc. involves the installation of high speed automatic equipments and requires precision workmanship of a high order. The equipments at present installed by the industry are not generally suitable for this purpose. In the circumstances, we recommend that steps should be taken by Government at an early date to establish additional capacities not only for production of ordinary types of machine screws but also for the manufacture of precision and specialised types of screws. In issuing licences for additional capacities either to existing units or to new units steps should be taken by Government to ensure that a licencee confines itself to the manufacture of only a reasonable number of types and sizes of screws so as to achieve the economies and other benefits of mass production.

10.4. We understand that many types of precision and special screws such as Philips recessed head screws, Parker Kallon self-tapping screws, are protected by patents and that their manufacture in the country can be undertaken only under a licence from the patentees. Entrepreneurs undertaking the manufacture of these screws may have to enter into technical collaboration with foreign patentees. We suggest that Government may extend to the industry necessary facilities and assistance in this behalf.

11. Import control policy and imports.

11.1. *Import control policy.*—For the purpose of licensing imports, machine screws are included in Serial No. 22 of Part I of the Import Trade Control Schedule. The policy pursued by Government since January 1957 for import is given below:

11.2. During the licensing period January-June 1957 established importers were issued a quota of 10 per cent of one-half of their best year's imports for import of machine screws (including set screws) from soft currency areas, but licences were issued subject to both quantitative and monetary ceilings. During July-September 1957 no fresh licences were issued. During the subsequent half-year, that is, October 1957 March 1958 no separate quota was fixed for machine screws but established importers were allowed to utilise up to 10 per cent of their screws and machines studs for the import of machine screws. Besides, another 10 per cent of the combined quota of 5 per cent mentioned above was allowed to be utilised for import of only certain types of machine screws made from nickel chrome alloy steel and high tensile steel, such as, socket head cap screws, socket set screws of different types of points, countersunk head screws, shoulder screws, pressure plugs, square head screws, tee bolts. The same policy was continued during April-September 1958 and October 1958—March 1959. During the licensing period April-September 1959 a combined quota of 2½ per cent has been fixed for machine screws, set screws, machine studs and cycle screws with the stipulation that not more than 25 per cent of the face value of the licences can be utilised for import of machine screws not falling within the special types mentioned above.

11.3. *Imports.*—Since January 1957, imports of machine screws are separately recorded by weight and value in the Monthly Statistics of the Foreign Trade of India. A statement showing imports of machine screws by countries of origin during the last two years is given in Appendix IV. It is observed that the aggregate imports during each of these two years were as follows:

Year	Quantity	Value
	(Tons)	Rs.
1957	274•10	10,65,857
1958	109·00	7,71,992

Export control policy and exports.

12. Export of machine screws is on Open General Licence. According to the Monthly Statistics of the Foreign Trade of India our exports of machine screws to neighbouring countries were to the value of Rs. 32,576 during 1958. Exports in the first quarter of 1959 were for about Rs. 467 only.

Existing rates of duty.

13. Iron and steel machine screws are assessed to duty under item No. 63(33)(b) of the First Schedule to the Indian Trade of India our exports of machine screws is re-produced below:

Item No.	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the prodce or manufacture of			Duration of protective rates of duty
				The United Kingdom	A British Colony	Burma	
63(33) (b)	Iron or Steel Screws :						
	Machine screws, including the following types the shank of which has been threaded to within two pitches from the head, namely, (i) mushroom head roofing bolts, all types; (ii) hexagonal head bolts, all types; (iii) mudguard cycle bolts (with threading other than British Standard cycle threading).	Protective	50 per cent. *ad valorem* or 60 Naye Paise per gross, whichever is higher.	..	..	Free	December, 31st 1959.

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14. Comparison of manufacturing cost of Universal Screw factory during 1950-58.

14.1. Our Assistant Cost Accounts Officer examined the costs of production of Universal Screw Factory, Chheharta and K.B. Engineering Company (Private) Limited, Sultanwind Road, Amritsar. The period selected for costing was the year ended 31st August 1958 in the case of Universal Screw Factory and the year ended 31st March 1958 in the case of K. B. Engineering Company (Private) Limited. The actual costs of production have been worked out for the following sizes which are most in demand :

3/16″ × ½″; 3/16″ × ¾″; 3/16″ × 1″; ¼″ × ¾″; ¼″ × 1″; ¼″ × 1½″ and ¼″ × 2″.

We discussed the cost data with the representatives of Universal Screw Factory but could not do so in the case of K. B. Engineering Company (Private) Limited as this company did not send a representative either to the public inquiry or for discussion of cost data. As the manufacturers desire that the details of their costs of production should be kept confidential, we are forwarding the reports of the Assistant Cost Accounts Officer as confidential enclosures to this Report.

14.2. A statement containing an analysis of the costs of production of machine screws by Universal Screw Factory from time to time is given in next page. The data were compiled by our Cost Accounts Officers at the time of the Tariff Board's inquiries in 1951 and the Commission's inquiries in 1954, 1957 and 1959.

14.3. The most significant cost change during the period 1950-56 was that despite increases in the price of steel wires, Universal Screw Factory was able to bring down its costs of production by reducing its conversion charges by 50 per cent and also by economising in the consumption of raw materials. For example, in case of 3/16″ × ¾″ machine screws, the cost of raw materials per unit of machine screws increased by about 21 per cent only although the price of steel wires rose by 28 per cent. The conversion charges were brought down by 50 per cent from Re. 0.972 to Re. 0.483 per gross. There was an increase in packing expenses but its incidence on the cost of production was negligible. The cumulative effect of these factors was that the ex-works price of screws of this particular size declined by about 31 per cent. During 1957-58, however, there were increases in the cost of raw materials and packing expenses as compared with 1955-56. There was an increase in conversion charges also which was ascribed by the manufacturer as due mainly to (i) 25% increase in the levy of electricity duty, (ii) an appreciable rise in the cost of consumable stores, and (iii) frequent stoppages on account of breakdown in power supply. Consequently, the cost of production of 3/16″ × ¾″ machine screws went up by about 18 per cent as compared with the corresponding cost during 1955-56. Nevertheless, the cost of production during 1957-58 of the various sizes mentioned in the statement remained at a lower level than in 1950-51.

Statement showing analysis of costs of production of machine screws at Universal Screw Factory during the period 1950-58

(Per gross)

Size	Sept. 50—April 51 (8 months)				1953-54				1955-56				1957-58				Remarks
	Raw Material	Conversion charges	Packing penses ;	Total	Raw mate-rial	Conver-sion charges	Pack-ing ex-penses	Total	Raw mate-rial	Conver-sion charges	Packi-ing expenses	Total	Raw mate-rial	Conver-sion charges	Pack-ing ex-penses	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
3/16×½″ . . .	0.246	0.972	0.057	1.275	0.254	0.606	0.041	0.901	0.272	0.483	0.062	0.817	0.320	0.598	0.065	0.983	
3/16×¾″ . . .	0.295	0.972	0.053	1.320	0.332	0.606	0.046	0.984	0.358	0.483	0.072	0.913	0.401	0.598	0.075	1.074	
3/16×1″ . . .	0.399	0.972	0.073	1.444	0.382	0.606	0.052	1.040	0.427	0.483	0.089	0.999	0.507	0.598	0.092	1.197	
¼″×½″ . . .	0.498	0.972	0.079	1.549	0.481	0.606	0.052	1.139	0.556	0.483	0.089	0.128	0.636	0.598	0.092	1.326	
¼″×¾ . . .	0.640	0.972	0.096	1.708	0.599	0.606	0.066	1.271	0.730	0.483	0.107	1.320	0.766	0.598	0.100	1.464	
Price of M.S. wire per lb.	0·294				0·320				0.377				0·429				

15. Estimates of cost of production and fair ex-works price

15.1. We have framed estimates of future cost of production and fair ex-works prices of indigenous machine screws on the basis of data collected by our Assistant Cost Accounts Officer. The statement in next page gives our estimates. In framing the above estimates, we have taken into account the following factories :

(i) Annual production has been assumed at 1 million gross in the case of Universal Screw Factory and 30,000 gross in the case of K. B. Engineering Co. (Private) Ltd.

(ii) *Raw materials.*—The cost of raw materials has been computed at the latest prices paid by the factory. Wastage has been allowed at 5 per cent on the weight of the finished product.

(iii) *Return.*—Return on capital has been assessed at 10 per cent on capital employed.

15.2. For estimating the fair ex-works price of machine screws manufactured in the country we have taken a simple average of the costs of the two factories concerned. On this basis the average fair ex-works price of different sizes of machine screws works out to :—

(Value in Rs. per gross)

Sizes Diameter × length	Fair ex-works price for		Average
	Universal Screw Factory	K. B. Engineering Co.	
3/16"×½"	0.982	0.989	0.99
3/16"×¾"	1.079	1.094	1.09
3/16"×1"	1.211	1.178	1.19
¼"×¾"	1.439	1.488	1.46
¼"×1"	1.614	1.624	1.62
¼"×½"	1.937	1.922	1.93
¼"×24	2.329	2.154	2.24

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C. i. f. prices and landed costs

16. We have received c.i.f. prices of imported machine screws from the Collectors of Customs, Bombay and Madras but they do not relate to the types and specifications costed by us. We have also collected c.i.f. quotations from our High Commission in London, Embassy in Japan and Vulcan Trading Co. (Private) Ltd. (Appendix V). The quotations of machine screws of Japanese origin furnished are the lowest. However, from the breakdown of imports of machine screws according to countries of origin, (Appendix IV), it is observed that imports from Japan went down steeply from Rs. 68,079 in 1957 to Rs. 16,530 in 1958. There has been no import from Japan during the first quarter of 1959. The bulk of imports has been taking place from U.K. followed by Western Germany, Netherlands and Sweden. We have not been able to collect information about export prices of machine screws from West

Statement showing the comparative estimates of fair ex-works prices per gross of machine screws of Universal Screw Factory, Chheharta and K. B. Engineering Co. (Private) Ltd., Amritsar for future for future

Estimated production : (i) Universal Screw Factory .. .. .. 10,00,000 gross.
: (ii) K. B. Engineering Works .. .. .. 30,000 gross.

Sl. No.	Details	SIZES OF SCREWS													
		3/16″×½″		3/16″×¾″		3/16″×1″		¼″×¾″		¼″×1″		¼″×1½″		¼″	
		U.S.F.	K.B.E.	U.S.F.	K.B.E.	U.S.F.	K.B.E.	U.F.F.	K.B.E.	U.S.F.	K.B.E.	U.S.F.	K.B.E.	U.S.F.	K.B E.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1.	Raw materials.	0.328	0.280	0.411	40.382	0.519	0.458	0.786	0.763	0.968	0.890	1.277	1.170	1.629	1.395
2.	Conversion charges (less recoveries).	0.527	0.556	0.527	0.556	0.527	0.556	0.527	0.556	0.527	0.556	0.527	0.556	0.527	0.556
3.	Packing charges	0.078	0.059	0.090	0.059	0.110	0.064	0.066	0.059	0.055	0.064	0.061	0.072	0.091	0.072
4.	Total cost of production	0.933	0.895	1.028	0.997	1.156	1.078	1.379	1.378	1.550	1.510	1.865	1.798	2.247	2.023
5.	Return	0.049	0.094	0.051	0.097	0.055	0.100	0.060	0.110	0.064	0.114	0.072	0.124	0.082	0.131
6.	Fair-exworks price	0.982	0.989	1.079	1.094	1.211	1.178	1.439	1.488	1.614	1.624	1.937	1.922	2.329	2.154

Germany and Netherlands. Prices of screws of U. K. origin are higher. Accordingly we have adopted c.i.f. prices of machine screws of Swedish and Japanese origin for purposes of comparison with the fair ex-works prices of indigenous machine screws.

Comparison of c. i. f. prices with fair ex-works prices

17. Comparison of the average fair ex-works prices of selected varieties of machine screws with the landed costs, ex-duty, of corresponding Swedish and Japanese machine screws is shown in the Table in next page. Following past practice, we have added Re. 0.60 per gross to the ex-works prices of screws of indigenous origin to cover the disadvantage on account of railway freight from the factories at Amritsar to the main consuming centres in the country. The Table indicates that only nominal import duties are required to equate the fair ex-works prices *plus* the freight disadvantage of indigenous screws with the landed costs without duty of imported Swedish screws in the following three cases :

Sizes	Duty indicated
3/16"×½"	5.1% *ad valorem* or 5 nP. per gross.
3/16"×½"	7.5% *ad valorem* or 8 nP. per gross.
3/16"×1"	5.1% *ad valorem* or 6 nP. per gross.

No import duty is indicated for the remaining four sizes of screws, namely ¼" × ¾"; ¼" × 1"; ¼" × 1½" and ¼" × 2". As regards competition from cheaper Japanese screws, import duties required to protect the indigenous industry are indicated below :

Sizes	Duty Indicated
3/16"×½"	70.5 *ad valorem* or 43 nP. per gross.
3/16"×¾"	58.3 *ad valorem* or 42 nP. per gross.
3/16"×1"	49.4 *ad valorem* or 41 nP. per gross.
¼"×¾"	13.5 *ad valorem* or 18 nP. per gross.
¼"×1"	11.3 *ad valorem* or 17 nP. per gross.

No import duty is indicated for sizes ¼" × 1½" (– 1% *ad valorem* or – 2 nP. per gross) and ¼" × 2" (– 12.3% *ad valorem* or – 32 nP, per gross). The simple average of these rates comes to 27.1 per cent *ad valorem* or 18 nP. per gross.

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A comparison of the average fair ex-works prices of the selected varieties of machine screws of Universal Screw Factory and K. B. Engineering Co. (Private) Ltd. with the landed cost without duty of Swedish and Japanese machine screws.

	Dia × length	Dia × length	Dia × length	Dia × length	Dia × length	Dia × length	Dia × length
	3/16″ × ½″	3/16″ × ¼″	3/16″ × 1″	¼″ × ¾″	¾″ × 1″	¼″ × 1½″	¼″ × 2″
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Fair ex-works price per gross	0.99	1.09	1.19	1.46	1.62	1.93	2. 24
Average freight disadvantage	0.06	0.06	0.06	0.06	0.06	0.06	0.06
(a) Total	1.05	1.15	1.25	1.52	1.68	1.99	2.30
(b) C.I.F. prices per gross for imports from Sweden	0.99	1.06	1.18	1·85	2.00	2.43	2.91
(c) Clearing charges	0.01	0.01	0.01	0.01	0.01	0.01	0.01
(d) Total landed cost without duty (b+c)	1.00	1.07	1.19	1.86	2.01	2.44	2.92
(e) Difference (a—d)	0.05	0.08	0.06	(—)0.34	(—)0.33	(—)0.45	(—)0.62
(f) Difference (e) as percentage on (b) the C.I.F. price	5.1%	7.5%	5.1%	(—)18.4%	(—)16.5%	(—)18.5%	(—)21.3%
Existing rates of duty : ad valorem rates	50%	50%	50%	50%	50%	50%	50%
or Alternative specific rates	0.60	0.60	0.60	0.60	0.60	0.60	0.60

(b) C.I.F. prices per gross for imports from Japan	0.61	0.72	0.83	0.133	1.50	2.00	2.61
(c) Clearing charges	0.01	0.01	0.01	0.01	0.01	0.01	0.01
(d) Total landed cost without duty (b+c)	0.62	0.73	0.84	1.34	1.51	2.01	2.62
(e) Difference (a—d)	0.43	0.42	0.41	0.18	0.17	(—)0.02	(—)0.32
(f) Difference (e) as percentage on (b) the C.I.F. price	70.5%	58.3%	49.4%	13.5%	11.3%	(—)1	(—)12.3%
Existing rates of duty : Ad valorem rates	50%	50%	50%	50%	50%	50%	50%
or The alternative specific rates	0.60	0.60	0.60	0.60	0.60	0.60	0.60

Measure of protection

18. It would appear from the foregoing paragraph that only nominal duties are required to equate the prices of indigenous machine screws of a few sizes with those of corresponding Swedish screws. In the case of cheaper Japanese screws the duty required to place the indigenous product on an equal footing is 27.1 per cent *ad valorem* or 18 Naye Paise per gross. The current duty is, however, higher namely, 50 per cent *ad valorem* or 60 Naye Paise per gross, whichever is higher. *Prima facie* there is a case for reduction of the quantum of tariff protection enjoyed by the industry. We are also convinced that given adequate and regular supply of raw materials, the industry should be able to reduce its cost further so as to dispense with the need for protection altogether. The industry has achieved considerable progress since the last inquiry and has been producing nearly 90 per cent of domestic requirements of all types of machine screws. It has been enjoying massive protection under quantitative restrictions and we see little prospect of substantial relaxation of those restrictions in the near future. It is of course true that the industry has to expand substantially and also to invest fresh capital in the installation of automatic machinery for the manufacture of precision and specialised types of screws. But we are certain that so long as the industry enjoys a sheltered market in the country there will be no lack of incentive on the part of entrepreneurs to invest capital. Withdrawal of protection does not mean that imports of iron or steel machine screws will be duty-free. The real problem for the industry is adequate supply of raw materials and we have made appropriate recommendations in this behalf in paragraph 8. After considering all aspects of the case we have come to the conclusion that the iron or steel machine screw industry is no longer in need of protection. We recommend, therefore, that protection granted to the industry need not be continued beyond 31st December 1959. Government may impose with effect from 1st January 1960 revenue duty on iron or steel machine screws at such level as they deem necessary on consideration of revenue.

Summary of conclusions and recommendations.

19. Our conclusions and recommendations may be summarised as under:

(i) The domestic demand for machine screws, exclusive of the requirements of establishments which manufacture screws for their own use, is estimated at about 3.0 million gross for 1959. The demand may increase to 4.5. million gross in 1960 and 6.0 million gross in 1961.

[Paragraph 6.3.]

(ii) The Development Commissioner, Small Scale Industries should take necessary steps, as early as possible, to assess carefully the capacities on single shift of the three small scale units referred to in paragraph 7.2.2.

[Paragraph 7.2.2.]

(iii) The Iron and Steel Controller should arrange without delay for supply of additional quantities of billets to National Rolling and Steel Ropes Ltd., in order to meet the pressing current requirements of wire rods and wires by the machine screw industry.

[Paragraph 8.5]

(iv) As soon as Indian Steel and Wire Products Ltd. is able to effect despatches against all outstanding indents, the Iron and Steel Controller should take steps to plan production of wire rods and wires on this company as well as on National Rolling and Steel Ropes Ltd. in such a way that the raw material requirements of the machine screw industry on two shift basis are met in full and also in time.

[Paragraph 8.5]

(v) Manufacturers of machine screws should apply for wire rods and wires in standard gauges with standard tolerances and for reasonable quantities in each gauge. While issuing quota certificates both the Development Wing and the Iron and Steel Controller should satisfy themselves that they are made out in standard gauges with standard tolerances.

[Paragraph 8.5]

(vi) The Iron and Steel Controller should obtain quarterly returns—

(a) from Indian Steel and Wire Products Ltd., and National Rolling and Steel Ropes Ltd., showing their receipts of billets for conversion into wire rods and wires required for the machine screw industry and despatches of wire rods or wires to the several units in the industry against their indents,

(b) from all machine screw units showing actual receipts of wire rods and wires against their indents and the manner in which they have been utilised.

[Paragraph 8.5]

(vii) The machine screw industry should take immediate steps to improve the quality of its products by using only tested mild steel wire rods and wires and also by adopting closer supervision at each stage of manufacture.

[Paragraph 9.2]

(viii) The Indian Standards Institution should lay down at an early date standards for iron or steel-wire rods and wires for the machine screw industry.

[Paragraph 9.3]

(ix) Steps should be taken by Government at an early date to establish additional capacities not only for production of ordinary types of machine screws but also for the manufacture of precision and specialised types of screws.

[Paragraph 10.3]

(x) Protection granted to the machine screw industry need not be continued beyond 31st December 1959.

[Paragraph 18]

Acknowledgements

20. We wish to thank the producers, importers and consumers who furnished us with valuable information and whose representatives gave evidence before us.

C. RAMASUBBAN,
Chairman.

S. K. MURANJAN,
Member.

J. N. DUTTA,
Member.

R. S. BHATT,
Member.

RAMA VARMA
Secretary

BOMBAY;
23rd July, 1959.

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APPENDIX I

[*Vide* paragraph 3.1]

List of Firms bodies and Government departments to whom the Commission's questionnaires/letters were issued and from whom replies or memoranda were received.

*Indicates those who sent their replies/memoranda.

** Indicates thsoe who are not interested.

PRODUCERS :

*1. Universal Screw Factory, Chheharta, Amritsar.
*2. Jagatjit Engineering Works, Kapurthala.
*3. K. B. Engineering Co. Private Ltd., Sultanwind Road, Amritsar.
*4. Victor Industries, Sultanwind Road, Amritsar.
*5. National Industries, Sultanwind Road, Amritsar.
*6. Guest, Keen, Williams Ltd., Wakefield House, Spott Road, Ballard Estate, Bombay-1.
*7. Lallubhai Amichand Private Ltd., (Dun Aluminium Factory) 225/7, Tardeo Road, Post Box 4075, Bombay-7.
*8. Indian Telephone Industries Ltd., Duravani Nagar, Bangalore.
*9. Southern Industrial Corporation Private Ltd., 6, Armenian Street, Madras.
*10. Rambal Private Ltd., 35/4, Mount Road, Madras-2.
11. Bengal Screw Mgf. Co. Ltd., 2, Clive Road (4th Floor), Calcutta.
*12. Badhwar & Co., G.T. Road, Delhi-Shahdara.
13. Kwality Industries, 503-B, Industrial Area, Gill Road, Ludhiana.
*14. M. T. Mechanical Works, Mitter Ganj Road Gill, Vishiv Karma Street, Ludhiana-19.
15. S. Bhagat Singh, Govind-puri, Milerganj, Ludhiana.
16. Nadhu Shah Kapur, Kapur Building, Hoshiarpur Road, Jullundur.
17. Harsha Industries, Chheharta, Amritsar.
18. Bhola Nath Kapur & Co., 19, Govindpuri, Modi Nagar.

PRODUCERS' ASSOCIATIONS :

*1. Punjab Screw Manufacturers' Association, Sultanwind Road, Amritsar.
2. Screw Manufacturers' Association, India Exchange (7th Floor), India Exchange Place, Calcutta.

CONSUMERS :

*1. Atlas Cycle Industries Ltd., Sonepat (Near Delhi).
**2. Hind Cycles Ltd., 250, Worli, Bombay.
**3. Bharat Bijlee Ltd., King's Cirlce, Bombay.

*4. Crompton Parkinson (Works) Private Ltd., Haines Road, Worli, Bombay.

5. Kassala Ltd., Subzi Mandi, Delhi,

6. Kirloskar Bros, Ltd., Kirloskar Wadi, Satara District, (Bombay State).

**7. National Electrical Industries Ltd., Industrial Estate, Lalbaug, Bombay.

*8. Acme Manufacturing Co. Ltd., Antop Hill, Wadala, Bombay-31.

*9. General Electric Co. of India (Mfg.) Private Ltd., 58, Taratalla Road, Garden Reach, Calcutta-24.

*10. Kaycee Industries Ltd., Kamani Chambers, Ballard Estate, Bombay.

*11. Jay Engineering Works Ltd., 183A, Prince Anwar Shah Road, P.O. Box 2158, Calcutta.

**12. R. L. Seth & Co., Charkhawalan, Chawri Bazar, Delhi.

**13. George Oakes Private Ltd., P. O. Box No. 499, Bombay-1.

*14. Hindustan Aircraft Ltd., Bangalore.

*15. Hindustan Motors Ltd., 8, India Exchange Place, Calcutta.

16. Premier Automobiles Ltd., Construction House, Ballard Estate, Bombay-1.

17. Secretary, Railway Board, New Delhi.

*18. Controller of Stores, Western Railway, Churchgate, Bombay.

19. Controller of Stores, South Eastern Railway, Calcutta.

20. Controller of Stores, E. I. Railway, Calcutta.

*21. Controller of Stores, Central Railway, V. T., Bombay.

*22. Controller of Stores, Southern Railway, Perambur, Madras-23.

*23. Controller of Stores, North Eastern Railway, Gorakhpur.

*24. Bombay Port Trust, Ballard Estate, Bombay.

*25. Machinery Manufacturers Corporation Ltd., Birnivas, 207, Lower Circular Road, Calcutta-17.

*26. Godgrej and Boyce Mfg. Co. Ltd., Lalbaug, Parel, Bombay-12.

27. Mohindra Bros., Delhi-6.

*28. Venus Hardware Stores, 29, Bibijan Street, Barbhai Mohalla, Bombay-3.

29. Deccan Hardware Stores, Bombay-3.

*30. Controller of Stores, Northern Railway, Baroda House, New Delhi.

*31. Hindustan Klockner Switchgear Private Ltd., Prospect Chambers, 317/21, Dr. D. Naoroji Road, Bombay-1.

*32. T. I. Cycles of India Ltd., Ambattur, Near Madras.

33. Kirloskar Oil Engines Ltd., Elphinstone Road, Kirkee, Poona-3.

**34. Kirloskar Electric Co., Ltd., P. B. No. 1017, Bangalore-3.

35. Ronald Armstrong, 11, Bank Street, Elphinstone Circle, Bombay.

*36. Jyoti Ltd., Manufacturers & Engineers, Baroda-3.

37. Mulchandani Electrical & Radio Industries Pvt. Ltd., Sukh Sagar, Sandhurst Bridge Hughes Road, Bombay-7.

*38. Hindustan Machine Tools Ltd., Jalahalli P. O., Bangalore.

39. English Electric Co. of India Pvt. Ltd., Post Box No. 2392, Madras-27.

*40. Matchwel Electricals (India) Ltd., P. O. No. 156, 4/11, Asaf Ali Road, New Delhi.

*41. Jessop & Co. Ltd., 63, Netaji Subhas Road, Calcutta.

*42. Indian Copper Corporation Ltd., P. O. Ghatsila (S. E. Rl.).

*43. Associated Electrical Industries Mfg. Co. Pvt. Ltd., 1, Taratalla Road, Garden Reach P. O., Calcutta-24.

44. Hindustan Steel Private Ltd., P. O. Bhilai, Dist. Durg.

45. Guru Nanak Electric. & Mech. Works, Phagwara (Punjab).

46. Steel Age Industries (P) Ltd., Opp. Mazagaon Post Office, Mazagaon, Bombay-10.

47. Union Accessories (P) Ltd., Madras.

48. Roadmaster of India Ltd., Rajapura (Punjab).

*49. Pearl Cycle Industries Private Ltd., 30, Najafgarh Road, New Delhi.

IMPORTERS:

1. Batliboi & Co., Forbes Street, Fort, Bombay.

2. Bombay Belting Co., Ltd., 71-A, Netaji Subhas Road, Calcutta.

3. P. C. Cooper & Sons (Hardware) Ltd., 145, Netaji Subhas Road, Calcutta.

4. Lekhraj Devraj & Co., Narayan Dhuru Street, Bombay.

**5. East Asiatic Co. (India) Pvt. Ltd., Shree Niwas House, Waudby Road, Post Box 639, Bombay.

**6. Nettlefolds of India Pvt. Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay-1.

*7. William Jacks & Co., Ltd., Hamilton House, Ballard Estate, Bombay.

8. Maneklal & Co., 166, Dr. Dadabhoy Naoroji Road, Bombay.

**9. Capstan Wire Products Pvt. Ltd., 34, Netaji Subhas Road, Calcutta.

*10. P. B. Shah & Co. Pvt. Ltd., 34, Netaji Subhas Road, Calcutta.

11. Steel Merchants' Syndicate Ltd., 153, Narayan Dhuru Street, Bombay.

12. Bashimal Tirathram, 72/74, Bhajipala Lane, Bombay-3.

*13. Vulcan Trading Co. Ltd., Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay-1.

*14. Western India Hardware Mart, 9A, Narayan Dhuru Cross Lane, Bombay-3.

**15. Associated Exports and Imports Corporation, Eastern Bank Building, Bombay-1.

*16. Mahabir Export & Import Co., 7/33 Darya Ganj, Delhi.

17. Jagan Nath Babu Ram, Hauz Quazi, Delhi.

*18. Ghulam Mohiuddin, Gada Bazar, Srinagar.

*19. Bishambar Nath Balkrishan, 3, Narayan Dhuru Cross Lane, Bombay-3.
20. Dewanchand Murlidhar & Sons., 126, Narayan Dhuru Street, Bombay-3.
21. Hajimal Kedarnath, 94, Bhajipala Lane, Bombay.
*22. Harshadray & Co., Advani Chambers, Sir P. M. Road, Bombay.
23. Wadhaw Ram & Bros., 87, Nagdevi Cross Lane, Bombay.
24. Nandlal Sons & Co., Narayan Dhuru Street, Bombay.
25. Tarachand Gupta & Bros., Narayan Dhuru Street, Bombay.
**26. Eshwardas Tilloomal & Co., Bibijan Street, Bombay.
27. Kishanchand Khanna & Co., Bibijan Street, Bombay.-3.
*28. Naraindas Ramchanddas & Co., 93, Nagdevi Cross Lane, Bombay-3.
29. C. Prabhu Das & Co., Argyle Road, Bombay.
30. Madanlal Agarwal, Nagdevi Street, Bombay.
31. Ramchand Shrinarayan, Narayan Dhuru Street, Bombay.
32. Bombay Cycle Trd. Co., 418, Kalbadevi Road, Bombay.
33. Mehta & Co., Iron Market, Bombay.
34. Tirathdas Keshoram, 130, Narayan Dhuru Street, Bombay.
35. Bashimal Baijnath, 74, Bhajipala Lane, Bombay.
36. Bashmal Vinod Kumar, Bhajipala Lane, Bombay.
37. Sadhuram & Sons. Khokha Bazar, Bombay.
**38. Assam Oil Co. Ltd., Digboi P. O., Assam.
*39. United Importing & Exporting Syndicate, 46/4, Netaji Subhas Road, Calcutta.
40. A. U. Assam Oil Co., Digboi, Assam.
**41. Ramshai Raj Kumar, 85/87, Nagdevi Street, Bombay.
42. Maheshdas Sethi & Co., Rajindra Bazar, Jammu-Tawi.
43. Central India Machinery Mfg. Co. Ltd., Birla Nagar, Gwalior.
**44. Guest, William Pvt. Ltd., Chowringhee Road, Calcutta.
45. Jainson Trd., Co., Nai Sarak, Delhi.
*46. Harjimal Nand Lal, 75, Nagdevi Cross Lane, Bombay-3.
**47. Linotype and Machinery Ltd., 14, Madan Street, Calcutta.

RAW MATERIAL SUPPLIERS :

*1. Indian Steel and Wire Products Ltd., Indranagar P. O., Jamshedpur-8.
*2. National Rolling & Steel Ropes Ltd., Stephen House, 4, Dalhousie Square C cutta-1.

GOVERNMENT DEPARTMENTS :

*1. Senior Industrial Adviser, (Engineering) Development Wing (L. M. E. Dte.), Ministry of Commerce and Industry, Udyog Bhavan, King Edward Road, New Delhi.

2. Director General of Ordnance Factories, 6, Esplanade East, Calcutta-1.

3. Collector of Customs, Bombay.

4. Collector of Customs, Calcutta.

*5. Collector of Customs, Madras.

*6. Iron & Steel Controller, Office of Iron and Steel Control, 33, Netaji Subhas Road, Calcutta.

*7. Director General of Supplies & Disposals, Shahjahan Road, New Delhi.

*8. Development Commissioner, Small Scale Industries, Ministry of Commerce and Industry, Shahjahan Road Hutments, New Delhi.

*9. Director of Industries, Govt. of Punjab, Chandigarh (Punjab).

*10. Director of Industries, Govt. of West Bengal, 1, Hastings Street, Calcutta.

*11. Indian Standards Institiution, 9, Mathura Road, New Delhi.

12. First Secretary (Commercial), Embassy of India in Germany, 262, Kobienzor Strasse, Bonn (W. Germany).

*13. First Secretary (Commercial), to the Embassy in India in Japan, Empire House (Naigai Building), Maruneachi Tokyo (Japan).

*14. The Counsellor, Commercial, The High Commission of India, India House, Aldwych, London W. C.-2.

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APPENDIX II

(*Vide* paragraph 3.4)

List of persons who attended the Commission's Public Inquiry on 16 *th June*, 1959

PRODUCERS :

Name		Firm
1. Shri D. V. Virmani	Representing	Universal Screw Factory, Chhehrata, Amritsar.
2. Shri Madanlal Kapur	,,	Ditto.
3. Mr. N. Gaskell	,,	Guest, Keen, Williams Ltd., Wakefielsd House, Ballard Estate, Bombay. and Nettlefolds of India Private Ltd., Bombay.
4. Shri S. P. Khanna	,,	
5. Mr. E. C. Timmf	,,	
6. Shri I. M. Sakhuja	,,	Jagatjit Engineering Works, Kapurthala.
7. Shri Rameshchandra G. Shah	,,	Lallubhai Amichand Private Ltd., 225/7, Tardeo Road, Bombay-7.
8. Shri K. Ramanathan	,,	Southern Industrial Corpn., Private Ltd., 6, Armenian Street, Madras-1.
9. Shri Jaswantsingh	,,	R. C. Edward & Co. (P) Ltd., 16, Arthur Bunder Road, Bombay.
10. Shri Jagtarsingh	,,	Ditto.

RAW MATERIAL SUPPLIERS.

Name		Firm
11. Shri I. M. Pai	,,	Indian Steel & Wire Products Ltd., Indranagar P. O., Jamshedpur.
12. Shri A. K. Subramaniam	,,	Ditto.
13. Shri K. C. B. Mehta	,,	National Rolling & Steel Ropes Ltd., Stephen House, 4, Dalhousie Square East, Calcutta-1.

IMPORTERS. :

Name		Firm
14. Shri R. S. Subramaniam	,,	Vulcan Trading Co., (P) Ltd., Indian Mercantile Building, Nicol Road, Bombay.
15. Shri Chunilal L. Vassa	,,	Western India Hardware Mart 9-A, Narayan Dhuru Cross Lane, Bombay-3.

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CONSUMERS :

16. Shri S. K. Basu	Representing	Controller of Stores, Central Railway, V. T., Bombay.
17. Shri D. Velayudham	,,	Controller of Stores, Western Railway, Churchgate, Bombay.
18. Shri A. D. Souza	,,	Crompton Parkinson (Works) Private Ltd., Worli, Bombay-18.
19. Shri A. V. Lineswala	,,	Hindusthan Klockner Switchgear Private Ltd., Prospect Chambers, 317/21, Dr. Dadabhoy Naoroji Road, Bombay-1.
20. Shri Shri Nariman D. Sahukar	,,	Godrej & Boyce Mfg. Co., Private Ltd., Lalbaug, Parel, Bombay-12.
21. Shri B. M. Bavdekar	,,	Machinery Manufacturers Corporation Ltd., Gateway Building, Apollo Bunder, Bombay.
22. Shri N. B. Mistry	,,	G. E. C. of India Private Ltd., Magnet House, Ballard Estate, Bombay.

GOVERNMENT OFFICIALS :

23. Shri M. Rama Rao	,,	Development Wing, Ministry of Commerce & Industry, New Delhi.
24. Col. O. G. Eapen	,,	Office of Iron & Steel Control, 33, Netaji Subhas Road, Calcutta.
25. Dr. J. D. Verma	,,	Office of the Development Commissioner, Small Scale Industries, Ministry of Commerce & Industry, Shahjahan Road Hutments, New Delhi.
26. Shri A. B. Rao	,,	Indian Standards Institution, 9, Mathura Road, New Delhi.
27. Shri Ramaswamy	,,	
28. Shri A. P. Bhandarkar	,,	Collector of Customs, Bombay.

APPENDIX III-A

[*Vide* paragraph 7. 1. 3]

Statement showing the date of commencement of production, installed capacity and actual production during the years 1957, 1958 *and* 1959 (*Jan.-March*) *of the units manufacturing machine screws.*

(In Gross)

Sl. No.	Name of the unit	Date of commencement of production	Rated capacity single shift	Production		
				1957	1958	1959 (Jan.-March)
1	2	3	4	5	6	7
(A)	MACHINE SCREW SECTOR :					
	Units borne on the list of development wing					
1	Universal Screw Factory, Chheharta . . .	1941	900,000	685,061	883,704	217,388
2	Jagatjit Engineering Works, Kapurthala.	1944	300,000	356,209	518,126	101,789
3	K. B. Engineering Co., Amritsar . . .	1952	36,000	5,358	30,222	4,544
4	Victor Industries, Amritsar	1943	6,000	13,231	16,843	796
5	Guest, Keen, Williams, Ltd., Bombay.	1956	100,000	183,121	174,021	43,107
6	Lallubhai Amichand Private Ltd., Bombay. .	1951	125,000	41,678	44,986	6,429
7	Indian Telephone Industries, Bangalore . .	1956	25,000	10,960	13,126	2,239
8	Southern Industrial Corpn. Private Ltd., Madras .	1958	156,000	1,041	1,421	612
9	Bengal Screw Mfg. Co., Calcutta. . . .	1956	300,000	2,429	4,857	5,164
10	Badhawar & Co., Delhi .	1950	144,000	21,469	10,728	5,200
	TOTAL		2,092,000	1,320,557	1,698,034	387,268

(In gross)

1	2	3	4	5	6	7
	Units borne on the list of the Small Scale Industries Corpn.					
1	National Industries, Amritsar	..	..	5,425	22,193	Nil.
2	Kwality Industries, Ludhiana . . .	..	..	68,526	184,915	59,098
3	M. T. Mechanical Works, Ludhiana . . .	..	..	3,000	4,000	1,300
	Units borne on the list of the Small Scale Industries Corpn.					
4	S. Bhagat Singh, Ludhiana	..	..	400	480	100
5	Nadhu Shah Kapur, Jullundur . . .	..	..	7,828	67,747	29,350
6	Harsha Industries, Amritsar	..	..	5,000	4,000	1,000
	TOTAL	..	..	190,179	283,335	90,848

N.B.—The question of revision of capacity of Victor Industries, Amritsar is at present under consideration of the Development Wing.

Capacity of Bengal Screw Mfg. Co. Ltd., includes roofing bolts also.

APPENDIX III-B

[*Vide* paragraph 7.3]

Statement showing names, addresses, installed capacity and production from 1956 *to* 1959 (*Jan. March*) *of socket head screw manufacturers in and around Calcutta.*

(In gross)

Sl. No.	Name and address of the unit	Started Production in	Annual Installed Capacity	Production			
				1956	1957	1958	Jan. March, 1959
1	2	3	4	5	6	7	8
1	B.B.G. Iron & Steel Works, 6/1, Ghospara Lane, Salkia, Howrah.	1957	180	..	25	10	Nil
2	Nirmal Engineering Works, 140/1, Banaras Road, Howrah.	1951	3,000	600	900	1,200	200
3	Aisatic Engineering Industries, 59, G.T. Road, Howrah.	1952	4,000	500	600	500	100
4	A.L. Mondal & Sons, 44, Nanipara, Baranagar, Calcutta.	Oct., 1956	300	24	120	200	40
5	Amal Engineering Works, 44, Nanipara, Baranagar, Calcutta.	May 1956	100	50	60	40	25
6	Arun Engineering Works, 44,/1, Nanipara, Baranagar, Calcutta.	Sept. 1956	200	50	150	100	20
7	A.T. Coomar, 1, Amritlal Daw Road, Baranagar, Calcutta-36.	1956	1,000	180	290	460	125
8	P. C. Coomar & Sons, 1 Q Road, Howrah.	1956	6,000	350	500	1,000	700
	TOTAL		14,780	1,754	2,645	3,510	1,210

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APPENDIX IV

[*Vide* paragraph 11.3]

Statement showing Imports of Machine Screws by Countries of Origin, during 1957 *and* 1958.

Sl. No.	Source of import	1957		1958	
		Quantity	Value	Quantity	Value
		Tons.	Rs.	Tons.	Rs.
1	U.K.	76.75	4,39,676	30.65	3,12,642
2	U.S.S.R.	..	16	..	..
3	Sweden	47.95	97,367	4·55	11,279
4	Norway	..	603	0.05	874
5	Denmark	6.30	10,142	6.00	11,659
6	West Germany	32.05	1,39,802	41.05	2,78,095
7	Netherlands	13.75	1,63,019	6.85	67,558
8	Belgium	4.55	7,548	..	..
9	France	0.05	2,558	1.05	22,798
10	Switzerland	2.20	9,003	0.90	8,411
11	Italy	0.10	2,764	0.05	1,121
12	Austria	42.50	59,685	4.85	6,346
13	Czechoslovakia	..	141	0·05	104
14	Japan	35.50	68,079	8.80	16,530
15	Libya	..	227	..	..
16	U.S.A.	6.55	57,912	2.90	28,298
17	Australia	5.85	7,315	..	..
18	Canada	..	..	1.25	6,277
	TOTAL	274.10	10,65,857	109.00	7,71,992

APPENDIX V

[*Vide* paragraph 16]

Statement showing c.i.f. prices, customs duty, clearing charges and landed cost of imported machine screws.

(Rs. per gross)

Source of information	Origin of import	Date of import	Type and Specification	C.i.f. price	Customs duty	Clearing charges	Landed cost	Remarks
1	2	3	4	5	6	7	8	9
Collector of Customs, Bombay.	U.K.	25-2-59	Socket Hd.cap screw		50%	5%		
			3/16″×1″	17.84	8.92	0.89	27.65	
			3/8×2½″	41.85	20.93	2.09	64.87	
Do.	Japan	10-1-59	Fully threaded					
			bolts 3/8″×1″	3.29	1.65	0.16	5.10	
Do.	Sweden	15-2-59	Cheese Head		60 nP. per gross			
			¾″×5/32″	1.10	0.60	0.05	1.75	
			½″×3/16″	1.14	0.60	0.06	1.80	
					50%			
			3″×¼″	4%45	2.23	0.22	6.90	
			2½″×¼″	3.68	1.84	0.18	5.70	
			Raised Heads					
			1½×3/8″	4.31	2.15	0.22	6.68	
			1¼″×3/8″	4.07	2.03	0.20	6.30	
Do.	U.K.	13-1-59	Cheese Head notted		60 nP. per gross			
			¼″×3B.A.	1.10	0.60	0.05	1.75	
			3/8″×3	1.16	0.60	0.06	1.82	
			½″×3	1.24	0.60	0.06	1.90	
			5/8″×3	1.27	0.60	0.06	1.93	
			¾″×3	1.42	0.60	0.07	2.09	
Do.	China	15-12-58	Roofing bolts & nuts		50%			
			¼″×¾″	1.58	0.79	0.08	2.45	
Do.	Japan	10-12-58	¼″×3″	3.06	1.54	0.15	4.75	
Do.	U.K.	8 11-58	2½×¼″	5.52	2.76	0.27	8.55	

1	2	3	4	5	6	7	8	9
Collector of Customs, Madras.	U.K.	25-3-59	Unbrako Socket Head Cap Machine Screws. Whitworth thread.			50%	1%	
				½"×1¼"	37.21	18.61	0.37	54.88
				½"×1"	34.39	17.20	0.34	51.84
				½"×2"	48.87	24.44	0.49	73.80
				3/8"×1¼"	22.75	11.38	0.23	34.36
				3/8"×1½"	25.00	12.50	0.25	37.75
				3/8"×2"	29.69	14.85	0.30	44.68
				3/8"×3"	42.44	21.22	0.42	64.08
				3/8"×¾"	18.29	9.15	0.18	27.75
				3/8"×1"	20.56	10.28	0.21	31.05
				3/8"×2½"	35.65	17.83	0.36	53.83
				½"×3"	58.06	29.03	0.58	99.19
				3/16×¾"	13.19	6.60	0.13	19.93
				3/16×1"	15.38	7.69	0.15	23.21
				¼"×½"	12.50	6.25	0.13	18.86
				¼"×¾"	13.74	6.87	0.14	20.74
				¼"×1"	15.96	7.98	0.16	24.09
				¼"×1¼"	17.35	8.68	0.17	26.18
				¼"×1½"	18.98	9.49	0.19	28.66
				¼'×1¾"	20.76	10.38	0.21	31.36
				¼×2"	22.98	11.49	0.23	34.70
				¼"×2½"	27.22	13.61	0.27	41.10
				¼"×3"	29.06	14.53	0.29	43.88
				5/16"×¾"	15.96	7.98	0.16	24.09
				5/16"×1"	18.20	9.10	0.18	27.48
				5/16"×1¼"	19.53	9.77	0.20	29.49
				5/16"×1½"	20.94	10.47	0.21	31.62
				5/16"×2"	27.19	13.60	0.27	41.04
Embassy of India in Japan, Tokyo.	Japan	Letter dt. 25-6-59	Round Head Machine Screws made of Iron or Steel.					
				3/16"×½"	0.61			
				3/16"×¾"	0.72			
				3/16"×1"	0.83			
				¼"×¾"	1.33			
				¼"×1½"	2.00			
				¼"×1"	1.50			
				¼"×2"	2.61			

1	2	3	4	5	6	7	8	9
The Counsellor (Commerical) High Commission India, London.	U.K.	Letter dt. 9-6-59	Mild Steel Round Head whitworth.					
			3/16″×½″		1.08			
			3/16″×¾″		1.17			
			3/16″×1″		1.32			
			¼″×¾″		2.06			
			¼″×1″		2.24			
			¼×2″		3.29			
			1¼″×1½″		2.74			
Western India Hardware Mart, Bombay.	Japan	..	Bright Iron Machine Screws W/W/ Threads Round head.					Prices furnished here are c.i.f. quotations received from Western India Hardware Mart. The firm received these quotations , from their principals M/s Minani Trading Co. Ltd.
			1/8″×1¼″		0.39			
			1/8″×1½″		0.50			
			1/8″×2″		0.75			
			1/8″×2½″		1.00			
			1/8″×3″		1.22			
			5/32″×2″		1.00			
			5/32″×2½″		1.28			
			5/32″×3″		1.50			
			3/16″×2½″		1.50			
			3/16″×3″		1.89			
			½″×2½″		2.61			
			¼″×3′		3.17			
			CSK Flat head.					
			3/16″×2½″		1.50			
			3/16″×6″		1.89			
			¼×2½″		2.61			
			¼″×3″		3.17			
			CSK Flat head.					
			5/16 ×2½″		4.33			
			5/16″×3″		5.33			
Vulcan Trading Co. (Private) Ltd., Bombay.	Sweden		Mild steel Round Head, Whitworth's thread.					The firm is an indenting Agent for their Principals M/s Aug Stenman A.B.Sweden. Prices given here are c.i.f. quotations.
			⅛″×¼″		0.59			
			⅛″×⅜″		0.63			
			3/16″×⅜″		0.94			
			3/16″×½″		0.99			
			3/16″×¾″		1.06			
			3/16″×1″		1.18			
			¼″×¾″		1.85			
			¼″×1″		2.00			
			¼″×1½″		2.43			
			¼″×2″		2.91			

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